

**Notice of Allowability**

Application No.

09/841,666

Applicant(s)

TANAKA ET AL.

Examiner

HOAN C. NGUYEN

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to 5/18/2007.
2. ☒ The allowed claim(s) is/are 6-9 and 17-29.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

### **DETAILED ACTION**

Claims 1-5 and 10-16 have been cancelled.

#### ***Allowable Subject Matter***

Claims 6-9 and 17-29 are allowed.

#### ***Reasons for Allowance***

Claims 6 and 7 are allowed since there is no prior art teaches a apparatus for producing an optical film comprising: a cylindrical die roller having a matrix formed on a surface thereof in which a plurality of rows of concave portions or convex portions that are configured by quadrangular pyramids having square bottom faces and linearly continuous are regularly arranged so as to be adjacently formed in parallel with one another and being defined such that each of the square bottom faces has at least one diagonal ridge line inclined at a predetermined angle of between about 10 degrees and 40 degrees with respect to a direction of a rotation axis of the die roller.

Claims 8-9 are allowed since there is no prior art teaches a method of producing an optical film, comprising the step of: rotating on a film a cylindrical die roller having a matrix formed on a surface in which a plurality of rows of concave portions or convex portions that are configured by quadrangular pyramids having square bottom faces and linearly continuous, are regularly arranged so as to be adjacently formed in parallel with

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one another and being defined such that each of the square bottom faces has at least one diagonal ridge line inclined at a predetermined angle of between about 10 degrees and 40 degrees with respect to a direction of a rotation axis of the die roller, to transfer the plurality of rows of concave portions or convex portions to a surface of the film.

Claims 17 and 24 are allowed since there is no prior art teaches a apparatus for producing an optical film comprising a cylindrical die roller having concave portions or convex portions formed on a surface thereof, the die roller being rotated on a film to transfer the concave portions or convex portions to a surface of the film, wherein the concave portions or convex portions each include a face having at least one diagonal ridge line (implying the face to be square or rectangular to have diagonal ridge line) inclined at a predetermined angle with respect to a direction of a rotation axis of the die roller and the concave portions or convex portions formed on the surface of the die roller are continuously arranged so as to form linear rows the linear rows being adjacently arranged in parallel with one another and extending in a direction which forms the predetermined angle with respect to a side of the cylindrical die roller

Claims 18-23 and 25-29 are allowed since they depend on the allowed claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany

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the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Jungersen (US2310790) discloses the optical reflecting material formed with a roller on which the convex or concave portions having triangular base are formed.

Pricone et al. (US 4618518 A) disclose the retroreflective sheeting formed by the roller, on which the convex or concave portions having triangular base are formed.

Rowland (US 3935359) discloses the retroreflective sheeting formed by the roller, on which the convex or concave portions having triangular base are formed.

Leonard (US 4343848) discloses an embossed thermoplastic film characterized in that one surface of the film provided with a plurality of rows of protuberances having the shape of pyramids with square bases, which extend perpendicular to both the longitudinal and the transverse axes of the film.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (571) 272-2296. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HOAN C. NGUYEN  
Examiner  
Art Unit 2871

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ANDREW C. HECHTER  
PRIMARY EXAMINER